

85

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/824,507	CHWALEK ET AL.	
	Examiner	Art Unit	
	Laura E. Martin	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/12/07.
2. ☒ The allowed claim(s) is/are 1-26 and 42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

  
**MANISH S. SHAH**  
**PRIMARY EXAMINER**

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Zimmerli on 12/3/07.

The application has been amended as follows:

**Claims:**

Claims 2-5, 13-26, previously withdrawn from consideration as a result of a restriction requirement are hereby rejoined. Withdrawn claims 27-41 are cancelled.

Claim 1, line 4: changed "and being operable to apply" to --to apply--,

Claim 1, lines 6-8: changed "chamber and being operable when fluid is within the fluid chamber to be able to apply the fluid inside of the fluid chamber fluid perturbing energy" to --chamber when the fluid is within the fluid chamber to apply to fluid inside of the fluid chamber a fluid perturbing energy--.

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: prior art does not teach or suggest a printhead comprising: a fluid chamber having an orifice; a fluid drop forming mechanism associated with the fluid chamber and being operable to apply to fluid present in the fluid chamber drop forming energy which is sufficient to cause a fluid drop to be ejected from the orifice; and a fluid drop steering device associated with the fluid chamber and being operable when fluid is within the fluid chamber to be able to apply to fluid inside of the fluid chamber fluid perturbing energy which is insufficient to cause drop formation to fluid present in the fluid chamber and which provides local perturbation of such fluid that changes the velocity of fluid flow during drop ejection to alter a drop path of the fluid drop from the orifice to an angle away from normal to the orifice, the fluid drop steering device being distinct from the fluid drop forming mechanism.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jeanmarie (US 6827429 B1) discloses ink ejected at different velocities and different flow paths caused by a drop steering device associated with the fluid chamber;

however, it does not disclose a fluid perturbing energy applied inside the fluid chamber which is insufficient to cause drop formation to fluid present in the fluid chamber and provides local perturbances of such fluid that changes the velocity of fluid flow during the drop ejection to alter a drop path of the fluid drop from the orifice in an angle away from normal to the orifice. The droplet steering device taught by Jeanmarie is located outside of the fluid chamber.

Jeanmarie (US 6883904 B2) discloses different velocities for different nozzle bores.

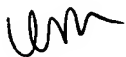
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Application/Control Number:  
10/824,507  
Art Unit: 2853

Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Laura E. Martin



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